Ministry of Blue Economy & Civil Aviation

Belize Department of Civil Aviation

ADVISORY CIRCULAR

Subject: Procedure for Issuing Aerodrome Exemptions and Exceptions

Date: 17-11-2022	AC No. BDCA AGA-012-2022
Initiated by: HWP	Revision: 00

1. PURPOSE

This Advisory Circular (A/C) is intended to provide guidance for aerodrome operators on the policies and procedures for processing an exemption/exception to the Belize Civil Aviation Regulations, BCAR 14 and BCAR 139.

2. APPLICABILITY

The guidance within this document is applicable to aerodromes to which the BCAR 14 and BCAR 139 applies in accordance with BCAR 139.001

3. WHAT CANCELS THIS AC.?

This Advisory Circular does not cancel any previous document.

4. WHO DOES THE AC AFFECT?

Aerodrome Operators, AGA Section Aerodrome Inspectors,

5. RELATED READING MATERIAL.

Regulations related are in BCAR 139

6. WHERE TO GET A COPY OF THIS AC?

You can get a Copy of this AC in the Technical Library of the Belize Department of Civil Aviation (BDCA) and in the BDCA website.

7. APPROVAL:

Capt. Nigel Carter
Director ,
Belize Department of Civil Aviation

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8. DEFINITIONS

Aeronautical Study. A study of an aeronautical problem(s) to identify possible solutions and select a solution or solutions that are acceptable without degrading safety.

A request for exemption/exception is a request from an aerodrome operator to be exempted or be granted and exception from a standard required of Belize Aviation Safety Regulations

Deviation. A requested change to a standard by providing an alternative method of compliance, which does not degrade safety.

Exemption. An approved alternative approach, practice or procedure for complying with a standard

Exception a provision to excluded (omission) from a general standard or does not follow a rule.

9. POLICIES

The BDCA does not "volunteer" to issue exemptions/exceptions. The applicant must request the exemption officially by completing the exemption application form and provide any necessary supporting documentation.

Appendix 01 provides a sample of exemption application form

Note: BDCA personnel may print-out or send digitally a copy of the form for applying for an exemption to any applicant. BDCA personnel may provide any person a copy of this advisory circular or give them the title of the publication and advise them were to find it on the Internet.

The BDCA will not take a position on the evidences of a possible exemption or deviation unless a request for an exemption has been officially submitted

When the application for exemption has been formally submitted and entered into the BDCA exemption process, the applicant will be issued an acknowledgement letter

Each exemption granted and the organization to which it was granted will be published in the Aeronautical Information Publication (AIP).

EXEMPTION / EXCEPTION & DEVIATION

One of the first determinations that must be made during certification is whether the applicant has requested exemption, deviation or waiver to any regulatory requirements.

If the applicant has requested, exemptions, exceptions, deviations or waivers in the formal application, the Safety Oversight Department (SOD) will conduct the appropriate review on a priority basis.

NEED FOR EXEMPTION OR DEVIATION

"Full" conformance with the BCARs is a goal of the certification process. It is a very idealistic goal where existing operators and organizations are confronting certification to a large body of regulations.

Until the operator determines their actual level of conformance during the completion of the regulation's compliance checklists, there are unidentified and unintended restrictions. During that process, the operator will inevitability determine that there are some requirements that cannot be met in the short term or by a specific grouping of organizations.

The assigned BDCA personnel shall underline the importance of the applicant to develop their initial regulations compliance checklist as soon their manual system is assumed to be ready for submission

This effort should identify those requirements that the applicant—

- Do not apply to his grouping of operators (request deviation);
- Will not be able to conform with in the short term (request exemption);
- Has a possible alternative that will achieve an equivalent level of safety (request exception)

10. DEVIATIONS

Deviation to regulations are intended to allow the SOD to provide regulatory relief to applicants if it can be established that a regulatory requirement was not intended for a specific grouping of organizations, aircraft and/or aviation personnel.

It is the responsibility of the applicant to make application for a deviation in accordance with the provisions of 2 1. The applicable Regulations Compliance Checklist should show that a request for deviation to the specific regulatory Section has been made as a submission included with the formal application for certification.

The applicant must make a separate application for each regulatory Section for which a deviation is requested.

The SOD will review the deviation requests and determine whether a deviation is justified.

- If this request meets the criteria for issuance of a deviation, that deviation will be granted.
- All organizations that are included in the grouping will be provided written notification of the contents of the deviation.

When this deviation is granted, the following actions will occur—

- A Formal Grant of Deviation will be issued to the organization;
- The applicable Section of the Regulations Compliance Checklist will be marked satisfactory; and

- An official notification of the grant of deviation will be sent to all organizations that are a party to that deviation.

11. EXEMPTIONS

Exemptions to regulations are intended to allow the BDCA to provide regulatory relief to an applicant, if it can be established that it is in the public interest to grant an exemption to the regulation.

It is the responsibility of the applicant to make application for an exemption in accordance with the provisions of BCAR 139.

- The applicable Regulations Compliance Checklist submitted with the formal application should be listed to show that a request for exemption to the specific regulatory Section has been included with the formal application for certification.

The applicant must make separate application for each regulatory Section for which an exemption is requested.

The BDCA will review the exemption requests and determine whether an exemption is justified. If this request meets the criteria for issuance of an exemption, the prior notification and comment will be completed.

When this exemption is granted, the following actions will occur—

- A Formal Grant of Exemption will be issued to the organization;
- The applicable Section of the Regulations Compliance Checklist will be marked satisfactory;
- The AIP will be updated to show this exemption has been issued

12. WAIVERS

If a provision for a waiver is included in the applicable regulations, the applicant may be granted that waiver if they meet the criteria of it.

The applicable Regulations Compliance Checklist submitted with the formal application should be marked to show that a request for a waiver to the specific regulatory Section has been included with the formal application for certification

If this waiver is granted, the following actions will occur—

- A Formal Grant of Waiver will be issued to the organization; an
- The applicable Section of the Regulations Compliance Checklist will be marked satisfactory.

13. PROCESSING THE EXEMPTION /EXCEPTION REQUEST

INITIAL REVIEW FOR COMPLIANCE

Requests for exemption are to be reviewed by BDCA to ensure that the following items are included in the request for exemption:

- An explanation of the nature and extent of the relief sought.
- Information, views, or arguments to support the action sought.
- The reason why granting the request would be in the public interest.
- The reason why the exemption would not adversely affect safety or the action to be taken by the requester to provide a level of safety equal to that provided by the rule from which the exemption is sought.

REQUEST DOES NOT MEET REQUIREMENTS

If the request does not include the information required, a letter of rejection is prepared for signature by the authorized BDCA representative.

This letter explains why the request does not satisfy the requirements and is to be sent to the requester within 30 days of the receipt of the request.

Appendix 02 provides a sample of a letter of exemption acknowledgement

REQUEST DOES MEET THE REQUIREMENTS

If the request meets the requirements, the BDCA prepares a letter acknowledging receipt of the request within 30 days.

- This letter is signed by the authorised BDCA representative.

TIME REQUIREMENTS

The request must, unless good cause is shown, be submitted at least 60 days before the proposed effective date of the exemption.

This means that normally the applicant may not expect final action in less than 120 days from the time of submittal to BDCA.

Applicants in exemption action are not notified until the grant or denial of the request has been issued.

ANALYSIS OF THE REQUEST

In an exemption action, maintaining an equivalent or greater level of safety is of primary concern. The analysis should focus on the applicant's justification that safety would not be adversely affected. Consideration in the analysis should include:

- The effect of an undue burden or compelling force upon the applicant if the exemption is not granted.

- The effect of setting a precedent with respect to safety and public interest.

A review of related previous exemption action may be in order. As with any request, BDCA may request additional information from the applicant.

GRANTING OR DENYING A REQUEST FOR AN EXEMPTION

DECISION TO GRANT AN EXEMPTION

After completing the analysis, BDCA may conclude that the applicant's arguments support a grant of exemption.

In this case, BDCA will draft a document granting the exemption for the signature by the authorized BDCA representative

DECISION TO DENY

After reviewing all of the issues involved, BDCA may determine that the applicant has not shown reasonable support to granting the exemption.

A decision to deny the exemption is based on the determination that the exemption would not be in the public interest, would adversely affect safety, or, if applicable, would not provide a level of safety equal to the rule.

Under such circumstances, BDCA will prepare a denial of the exemption document for signature by the authorized BDCA representative.

The denial document responds to the same questions cited in the grant of exemption and shall include BDCA's rebuttal to the applicant's arguments.

PARTIAL GRANT OF AN EXEMPTION

If BDCA determines that part of the applicant's request meets the criteria for granting the exemption, it may issue a partial grant of exemption.

The guidelines for both the grant of exemption and denial of exemption documents should be followed.

The document must fully discuss those parts of the request that are being denied and those that are being granted.

DOCUMENT CONTENTS

The document granting the exemption should answer the following questions:

- What was the requester's request?
- What does the current BCAR require?
- What arguments did the applicant use to support the request?
- If BDCA does not agree with all of the arguments presented by the applicant to support the grant of exemption, these reasons shall be discussed.

All issues presented by the applicant are to be addressed. The document should discuss how granting the request will not adversely affect safety and should explain how the action proposed by the applicant will provide a level of safety equal to the rule.

Any conditions, design modifications, operating limitations, expiration date, etc. must be made part of the granting clause.

COORDINATION & SIGNATURE

The BDCA will coordinate the appropriate grant or denial of the request for exemption within the appropriate BDCA Section.

- The document is then sent to the authorized BDCA representative for signature.

The BDCA will provide an exemption number, type this number on the upper right-hand corner of the first page and mail the original denial or grant document to the requester.

- The exemption number goes on this document even if the document is a denial of the exemption.

DISPOSITION PUBLICATION

BDCA prepares the notice of disposition and sends the exemption document to the appropriate BDCA Sections, the requester and, if necessary, the appropriate Aeronautical Information Service authority.

REQUEST FOR RECONSIDERATION

FILING A REQUEST FOR RECONSIDERATION

A request for reconsideration is a request to reconsider a previous denial or grant of an exemption.

A request for reconsideration of a denial of an exemption is to be filed with BDCA within 30 days after an applicant is notified of a denial of exemption.

A party other than the initial applicant may file a request for reconsideration of a grant of exemption. This request for reconsideration must be filed within 45 days after a grant of exemption is issued.

PROCESSING A REQUEST FOR RECONSIDERATION

The request for reconsideration must be based on additional information. The procedures for processing a request for reconsideration are the same as those for processing a denial or grant of request for exemption**.**

EXTENSION OF AN EXEMPTION TERMINATION DATE

Upon receipt of a request from an applicant to extend the termination date of an exemption, the BDCA shall prepare a letter of agreement or denial for the signature of the authorized BDCA representative.

The following information is to be included:

- The BCAR Section.
- Date of incoming request.
- Grant of extension statement.
- Exemption number (after signed).

A copy of the extension or denial shall be sent to BDCA prior to the original exemption termination date.

14. AERONAUTICAL STUDIES

An aeronautical study is conducted to assess the impact of deviations from National Regulations. It provides an alternative means of ensuring safety. To estimate the effectiveness of each alternative and to recommend procedures to compensate for the deviation.

I. OBJECTIVE

The objective of this document is to establish acceptable conditions for airport administrators so that, on the one hand, the arguments of these studies are raised uniformly, and on the other hand, the types of arguments used are limited to the previously identified by the BDCA. For this reason, an index of the document "Aeronautical Study" is proposed below, which must be followed by these studies. In Part 10 of this material, indications will be provided on the content of each of the topics.

a) the purpose of the study
b) characterization of the scenario
c) detailed definition of the study objective
d) identification of hazards and their effects
e) risk analysis
f) application alternative measures
g) conclusion
h) annexes

When preparing these aeronautical studies, the following should be taken into account:

• The title of the document will be: "Safety Assessment on (requirement breached) at the Airport".
• The group of experts participating in the sessions to identify hazards and their associated risks should be identified, as well as in the preliminary assessment of risks, including the corresponding severities assignment.
• The risk assessment method proposed for the preparation of aeronautical studies is related to those considered by the methodologies developed by the following entities:

- International Civil Aviation Organization, ICAO. Doc. 9859 Safety management manual.
- European Aviation Safety Agency (EASA)
- Study Note No. 14 of the Sixteenth Meeting of the CAR / SAM Regional Planning and Implementation Group of March 2011.
- Study Note No. 07 of the Fourth Meeting of Directors of Civil Aviation of North America, Central America and the Caribbean (NACC / DCA / 4) June 2011
- Doc. 9981 Procedures PANS-Aerodromes

The above methodologies refer to broader areas that include the complete life cycle from the definition and design, to the continued operation of systems that in some cases can be very complex. They have been incorporated only into the limited case of the risk assessment corresponding to the non-compliance with a specific regulatory requirement, defining the process of identifying associated risks and the subsequent evaluation of their acceptability by determining frequencies of occurrence (probabilities of occurrence) and severities.

II. GENERAL PROVISIONS

Aeronautical studies shall be carried out in the planning phase of a new infrastructure or during the certification process of an existing aerodrome.

All operators of aerodromes and aeronautical service providers shall not operate or develop procedures for those that have been subjected to a major modification or alteration, except when the requirements of an aeronautical study accepted by the BDCA in accordance with the guidelines established in this guide are met.

Any alteration or modification that is intended shall be made by trained aeronautical personnel and with technical information approved by the BDCA.

For the purposes of this guide, the definitions and terminology used in the Civil Aviation ACT, and Belize Civil Aviation Regulations are adopted.

III. EXEMPTIONS AND EXCEPTIONS

During the certification process, if an aerodrome does not comply with the applicable regulations for geographical, topographic, prior design or other reasons, and it is not possible to comply with them for duly justified reasons to the Civil Aviation Department, the operator may request to the BDCA for an exemption or exception, covering its request with alternative means of compliance, taking the difference to an acceptable level of risk through mitigation measures derived from a risk analysis or an aeronautical study as appropriate. Additional guidance material regarding Safety Assessment is in, Doc. 9981 PANS-Aerodromes. The mitigation procedures and actions

established by the safety assessment shall be included in the Aerodrome Manual, the deviations published in the AIP and the mitigation measures promulgated for the knowledge of the industry.

For purposes of understanding, the following concepts are established:

- Exception: Long-term authorization granted to the operator of an aerodrome. Releases the legal obligation to comply with a standard or part of it through an alternative method with an equivalent level of safety, conducting an aeronautical study.

- Exemption: Exceptional and temporary authorization granted to the operator of an aerodrome. Realises from the legal obligation to comply with a standard or part of it by an alternative method of compliance with an equivalent level of safety.

Once the proposed mitigation measures are approved by the BDCA and have been implemented, the Aerodrome Operator must follow up on the proposed measures in order to guarantee their effective application and establish metrics to determine that the result is the same. expected in terms of reducing the associated risk with the deviation.

If it is verified that the mitigation measures proposed are not giving the expected result, a new risk assessment shall be carried out to adjust the measures or propose new ones. This monitoring process shall be carried out at least once a year within the annual safety oversight plan.

The request for exceptions must be made by the airport operator to the BDCA, included with the formal request for certification, also attaching the aeronautical studies or risk assessments that, through mitigation measures, establish an equivalent safety level.

If subsequent to the granting of the certificate, changes occurred with respect to the technical standards for the design and operation of aerodromes, the Airport Administrator shall be obliged to request the modification of the certificate in accordance with RAC 139.111. The documents indicated in the previous paragraph should also be provided, if applicable.

The aerodrome certificate shall clearly state the conditions, limitations and exempts granted, as well as the reasons for their acceptance, the deadlines established to resolve them and the reference to the mitigation measures accepted by the BDCA. This will be indicated in the form 1005-A and in additional pages to this form as required.

The operator must place the exemptions in an appendix of the aerodrome manual with the specifications of its scope, time and mitigation procedures adopted. Likewise, deviations will be published in the state AIP and safety assessments will be published on the official website of the BDCA.

IV. SCOPE OF APPLICATION

This policy letter establishes the basic guidelines to be followed to develop an aeronautical study or safety assessment for requests for exemptions and exceptions. Applies to all Airport Operators that shall be certified according to the BCAR 14 Aerodromes and the BCAR 139 Aerodrome Certification, Operation and Surveillance.

V. REFERENCE DOCUMENTATION

- BCAR 14 Aerodromes Vol I
- BCAR 139 Aerodrome Certification, Operation and Surveillance
- Doc 9774. Aerodrome Certification Manual
- Doc 9981 PANS-Aerodromes

VI. ACRONYMS

AGA	Aerodromes and Ground Aids.	**FAA**	Federal Aviation Administration
AFIS	Aerodrome Flight Information Service)	**FTA**	Fault Tree Analysis

AIP	Aeronautical Information Publication	**AIPM**	Aerodromes Inspector Procedures Manual
ATS	Air Traffic Services	**BCAR**	Belize Civil Aviation Regulation
BDCA	Belize Department of Civil Aviation	**OS**	Safety

VII. DEFINITIONS

Alternative measures: Set of risk mitigation measures defined in order to guarantee that the risk reached or perceived is acceptable.

Equivalent safety level: Acceptable level of safety according to the risk classification scheme included in this guide.
Hazard: Condition or object that can potentially cause damage to personnel, equipment or structures, loss of material or reduction of the ability to perform certain function.

Hypothesis: Declaration, principle and / or premise established without supporting evidence.

Mitigation: Actions taken to control or prevent the harmful effects of a hazard and reduce the risk to an acceptable level

Procedure: Set of written instructions used by the staff to ensure compliance with their responsibilities in the provision of a service.

Risk: The combination of the likelihood or frequency of occurrence of a harmful effect induced by a hazard and the severity of its effects.

Risk assessment: Evaluation based on operational or engineering arguments and / or analytical methods aimed at establishing whether the risk reached or perceived is acceptable.

Safety: State where the possibility of harming people or property is reduced and maintained at the same level or below an acceptable level through the continuous process of hazard identification and safety risk management.

Severity: Level of the effect or consequences of a hazard on the safety of aircraft operations.

VIII. DESCRIPTION

VIII.1. Description of the exemption/exception request

In this section, among other considerations, it is suggested to include in the introduction the following text:

In accordance with the Civil Aviation Act, Chapter 239, the Belize Civil Aviation Regulation BCAR 14 Vol. I Design of Aerodromes and II. Heliports and BCAR 139 Aerodrome Certification, Operation and Surveillance, by which the technical standards for design and operation of aerodromes for public use in Belize are approved and the certification of the international aerodromes is regulated, as Airport Operator of the _____ has requested the beginning of the certification process in accordance with the related regulations.

Within the technical documentation that has to be provided, this aeronautical study/safety assessment is attached when requesting any of the exemptions defined in numeral 2 of this Guide.

Existing as part of the file a request for exemption based on the fact that compliance with the requirement is not reasonably viable (needs a temporary extension for compliance), this document proves that the existing scenario and the proposed alternative measures, sufficiently guarantee the maintenance of an equivalent level of safety, so that the BDCA can grant exemptions to compliance with the aforementioned requirement.

VIII.2. Characterization of Scenario

The characterisation of the scenario is carried out through an analysis that extends to the airport and the physical environment that surrounds it, the technical and operational resources that are used, as well as the particularities of the demand (current and future). In this section at least the following subparagraphs must be developed:

VIII.2.1. Physical setting

Physical setting is understood as the set of conditions introduced by the aerodrome environment that may be relevant from a safety point of view. The orography, meteorology and environmental restrictions are important elements to study.

VIII.2.2. CNS/ATM scenario

A set of technical and operational means that provide services to aircraft constitutes an important part of the scenario, requiring a description of the current and foreseeable evolution of the Air Navigation System at the aerodrome. Logically, the level of detail required will vary depending on the scope of the study, being sufficient in most cases a description of air traffic services (ATC and / or AFIS and / or absence of them including their application schedules), of the surrounding

airspace and its categorization (ATZ / CTR) and the enumeration of the types of NAVAIDs and procedures (instrumental and no instrumental) available for both arrivals and departures.

VIII.2.3. The aerodrome

Special attention should be devoted to describing the configuration of the movement area and its components (runway system, taxiway and platform, infrastructures and associated systems, such as strips, markings, lighting systems, etc.). It is not only necessary to know the physical data of the aerodrome, but also the way of using of its components. Consequently, the operation of the airport, expressed in terms of runway usage strategy, airport procedures and capabilities, should be considered.

VIII.2.4. Demand

The characteristics of traffic is another of the elements with important influence on the safety of operations. For this reason, a description of the demand should be provided, expressed in terms of traffic typology (visual / instrumental, commercial / sports, etc.), volume and distribution of operations (number of movements, peak hours, etc.) and composition of fleet (turboprops / reactors, heavy / medium / light, etc.). On the other hand, the representation of the demand must include a forecast of its evolution in the short (eg 5 years) / medium term (eg 15 years), resorting to the use of traffic prognosis.

VIII.3. Detailed Definition of the Purpose

In this section, at least the following subparagraphs must be developed.

VIII.3.1. Regulatory requirement for which an exception has been requested

Detailed identification of the regulatory requirement that is not met and justification of the reason, including the description of the level of non-compliance. Any report and detailed drawings necessary for the precise knowledge of the above shall be included.

VIII.3.2. Initial hypotheses

A detailed description of the initial hypotheses made in the conduct of the assessment which may have an impact on the conclusions of the study shall be included.

VIII.3.3. Alternative measures (actions)

A brief description of the proposed mitigation alternative measures (a detailed description shall to be stated in section 10.6). In the event that there are no necessary mitigation measures, since the current scenario allows to guarantee an acceptable safety level in accordance with the risk classification matrix considered, should be stated in this section.

VIII.3.4. Equivalent safety level

It will be expressly mentioned that the objective of the study is to demonstrate that "the existing scenario and the proposed alternative measures guarantee an equivalent safety level, in accordance with the risk classification matrix used".

VIII.4. Identification of Associated Hazards and Risk Level

For the aeronautical studies prepared in accordance with this guide, it should be noted that the identified hazard is precisely the breach of the regulatory requirement from which the exemption is sought. Therefore, the work session referred to in this section, although here developed in a generic way, in this particular case, should focus on the exhaustive identification of all the risks associated with the hazards, taking into account considerations that will be exposed later.

In order to adequately complete this numeral, at least the following subparagraphs must be developed:

VIII.4.1. Preliminary identification of hazards and associated risks

A preliminary identification of potential risks should be made, taking as reference similar cases from other airports, information from organizations such as ICAO, ACSA-PASOC, IATA, EASA or FAA, and statistical information on incidents or accidents that have occurred at the aerodrome.

VIII.4.2. Work session of the group of experts on the subject: Identification of hazards and associated risks.

Based on the preliminary registration of possible dangerous situations, a process of additional identification of hazards and their effects on the operation of aircraft must be followed. The operational environment in which they occur as a consequence of non-compliance with the corresponding regulatory requirement must be particularized, through a meeting with the different parties involved in the operation of the system. In general, the interaction between participants with varied experience and knowledge, generate wider and more balanced conclusions, which allow to meet the objective of identifying all possible hazards. Likewise, the technical and operational knowledge of the experts can play a fundamental role in the identification and evaluation of hazardous situations since it requires a deep understanding of the system and the concrete operational scenario.

Typically, in a session they should participate:

- System users, that is, those user groups that are directly involved in the operation, in order to evaluate the effects and consequences of associated hazards from an operational perspective (e.g., airport operators, air traffic controllers, pilots and flight crew, maintenance technicians of the different systems / equipment, etc.);

- Technical experts of the system, to explain the purposes, interfaces and functions of the system;

- Experts in safety and human factors, to guide the application of the methodology and present a broader understanding of the causes and effects of hazards;

The group session will be used only to generate ideas and make a preliminary evaluation, while the detailed evaluation will be done in the next step by the aeronautical specialist who is the author and accountable of the study.

The conclusions will be compiled and analysed after the session by the specialist. The work group will be informed later of the compiled results, in order to verify if in the analysis the information

has been correctly interpreted and the opportunity will be given to reconsider any aspect in order to ensure that the list of hazards and their effects is complete and correct.

Every work session must be documented and a log with the considerations and conclusions of each one will be kept.

VIII.5. Risk analysis.

In order to adequately complete this numeration, at least the following subparagraphs must be developed:

VIII.5.1. Classification and grouping of risks.

Prior to estimating the risks, it is recommended to carry out an ordering, classification and / or grouping that facilitates the subsequent treatment of the same. In order to give a greater basis to the categorization and ordering of said defined risks, it is recommended the use of techniques such as, 'Fault Tree Analysis' (FTA), Bow Tie or similar, whenever possible.

VIII.5.2. Severity evaluation.

For each of the effects of the identified risks, an assessment of its severity will be made according to the following matrix:

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Table – 1 Severity Table (Basic).

Level	Description	Severity description (personalization in accordance with the operational nature of the supplier's product or services.)
1	Insignificant	Few consequences Has no operational importance related to the aircraft.
2	Minor	Nuisance Operating limitations Use of emergency procedures Minor incident Degrades or affects the procedures or operational performance of the aircraft.
3	Mayor	Significant reduction in safety margins, a reduction in the ability to cope with adverse conditions. Serious incident. Injury to persons Partial loss of significant / important aircraft systems or results in the abnormal application of flight operations procedures
4	Hazardous	Large reduction in safety margins, physical distress or a workload such that tasks cannot be performed accurately/completely. Serious injury Major equipment damage Complete failure of significant / important aircraft systems or results in the abnormal application of flight operations procedures
5	Catastrophic	Equipment destroyed. Multiple deaths

SOURCE. Document 9859 "Operational Safety Management Manual ", Third edition. International Civil Aviation Organization.

VIII.5.3. Probability evaluation

For each of the identified risks, an assessment of its probability or frequency of occurrence will be made according to the following table:

Table – 3 Probability Table

Level	*Description*	*Description of the probability*
A	Frequent	it is expected to occur in most circumstances Likely to occur many times (has occurred frequently)
B	Probable / Occasional	Will probably happens at some point Likely to occur sometimes (has occurred infrequently)
C	Possible / Remote	it could happen at some time Unlikely to occur, but possible (has occurred rarely)
D	Unlikely / Improbable	it could happen at some time Very unlikely to occur (not known to have occurred)
E	Extremely improbable	it can happen only in exceptional circumstances Almost inconceivable that the event will occur

VIII.5.4. Risk classification matrix

For each of the identified risks, combination of frequency of occurrence and severity assigned to the effects of each hazard, the evaluation will be carried out according to the following matrix, and it must be demonstrated that the risks analysed in the scenario considered with the alternative measures proposals are in the "acceptable" situation:

Table 4 Risk Matrix Classification

Probability	***SEVERITY***				
	1.Insignificant	***2.Minor***	***3.Mayor***	***4. Hazardous***	***5.Catastrophic***
A.Safe / Frequent	**MODERATE (1A)**	**MODERATE (2A)**	**High (3A)**	**Extreme (4A)**	**Extreme (5A)**
B.Probable / Occasional	**Low (1B)**	**MODERATE (2B)**	**MODERATE (3B)**	**High (4B)**	**Extreme (5B)**
C. Possible / Remote	**Low (1C)**	**Low (2C)**	**MODERATE (3C)**	**MODERATE (4C)**	**High (5c)**
D.Unlikely / Improbable	**Insignificant (1E)**	**Low (2D)**	**Low (3D)**	**MODERATE (4D)**	**MODERATE (5D)**
E.Exceptional	**Insignificant (1E)**	**Insignificant (2E)**	**Low (3E)**	**Low (4E)**	**MODERATE (5E)**

SOURCE. Document 9859 "Operational Safety Management Manual ", Third edition. International Civil Aviation Organization.

Table 5. Acceptability.

Risk Index	*Tolerability*	*Necessary Measure (personalize if needed)*
5A, 5B, 4A	Extreme Risk	Stop the operation immediately. Unacceptable according to the existing circumstances. Do not allow any operation until adequate control measures have been implemented to reduce the risk to an acceptable level. The approval of the highest level of administration is required.
5C, 4B, 3A	High Risk	Caution. Make sure that the risk assessment has been satisfactorily completed and that the preventive controls declared are implemented. Approval of the evaluation of risks by the superior administration before the start of the operation or process.
1A,2A,2B`,3B,3C, 4C,4D,5D,5E	Moderate Risk	Perform or review risk mitigation, as necessary. Approval by risk assessment departments.
1B,1C,2C,2D,3D, 3E,4E	Low Risk	Mitigation or risk review is optional
1D,1E,2E	Insignificant Risk	Acceptable as is. No risk mitigation is needed.

SOURCE. Document 9859 "Operational Safety Management Manual ", Third edition. International Civil Aviation Organization.

VIII.6. Application of alternative measures.

In this section a detailed description of the proposed alternative measures must be made.
Likewise, the condition of the proposed measures to the operation of the airport must be shown.
In particular, it will be necessary to detail, at least:

- How to ensure compliance with alternative measures. Responsible within the organization. Procedures. Notifications. Information in the AIP. Inclusion within the Airport Manual and the Security Management System.
- Analysis of compliance with the regulations of the proposed measures, with an express declaration of this. This compliance with regulations refers to other prescriptions than the one from which the exemption is requested.

VIII.7. Conclusion.

In this section you must expressly state that:

According to the risk analysis carried out, this study confirms that the existing scenario and the proposed alternative measures described in section 10.3.3 sufficiently guarantee the maintenance of a level of operational safety equivalent to compliance with the standard - _____ at the _____Airport.

VIII.8. Records.

The Airport Administrator must keep a record of the studies and requests for exemptions, hazards and risks for each particular situation in which this type of procedure is required and may opt for

the following format, it will also be acceptable for the BDCA or any other medium handling of documentation as long as it adheres to the requirements of ISO 9001-2015 as a minimum.
Example:

Denomination	Archive Responsible	Support	Format	Codification	Archive Location	Time of Conservation	Confidentiality
Aeronautical Study	Department	Digital or physical	Word 2017	EA-SO-01-00	Technical Library	3 years	none

II. Annexes

Acronyms.

A list in alphabetical order of the acronyms used in the document and their meaning, must be included. As a general rule, they should be acronyms of official character and / or sufficiently known.

Reference Documentation

A list of the documentation used to carry out the study, in particular the technical references, regulations and common / internationally accepted standards that have been used, must be included. In each record the name of the document, Author and Date of edition / revision will be reflected.

Airport Plans.

The necessary Airport Plans will be included, including the appropriate detail and scale for the evaluation of the study.

Statistics.

In the case that statistical methods have been used in the risk analysis, sufficient information on their use in the study should be included: Methodology, applied models, Size and justification of the sample, calculation of means, percentiles, medians, etc. Information sources: AIP, AP Master Plan, reports, statistical yearbooks of traffic, data of flight plans and procedures, cartography, and others If you have counted on the help of a specialist in statistical analysis, you should include an express statement of the same regarding the validation of the method and the results.

Record of the group of experts' attendances to the work session

he names and surnames of the assistants will be included, as well as the organization to which they belong, their position held, a brief description of the professional profile of each one in order to guarantee that the main interested parties in the system are represented and finally the signature of each assistant; It will be registered according to the following format:

Assistant.	**Organization.**	**Position.**	**Professional profile**	**Signature.**

This record can be replaced by a list of the Airport's own assistance, it should consider the profile of the person to ensure the highest degree of operational safety in meetings with the appropriate personnel for each case.

Related Studies

Other studies that have been carried out and used for the preparation of the safety study or those studies that have been prepared previously and whose content has been applied will be included. Studies carried out within the framework of a training as part of the compulsory exercises are not valid.

Utilization of airports.

The BDCA requires that the studies be carried out by each airport, the particular conditions of location, land, equipment must be considered, one study may not be copied to another. However, the report could include an analysis of the possible applicability of the conclusions to the other airports with the same non-compliance.

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Procedure.

No.	Responsible	Description.
1.	**Causes for the Exemption or Exception request**	
		At the moment of beginning the process of certification of an aerodrome, in phase II "formal request" the team of aerodrome inspectors makes an inspection to the aerodrome to verify compliance with the characteristics described in the BCAR 14 Vol. I.
2.	**Request**	
		The request to request exemptions or exceptions: • At the request of the aerodrome inspector, based on the findings of the inspection carried out during the certification process. • In this case, the operator and the inspector hold a meeting to agree on the exceptions or exemptions to be made. • At the request of the operator, when the requesting to carry out an Aeronautical Study in the initial phase of the certification process. In this case, the operator must enter the request letter to the certification officer of the BDCA, with the signature of the Airport Manager or Administrator, attaching documentation or the reason for requesting an aeronautical study. The BDCA, through its aerodrome inspectors, evaluates the request. Also, when due to the impossibility of closing some PHASE IV findings of the certification process, the operator can request a time-limited exemption for the correction of these findings, the operator must present the date on which the deficiency will be corrected and reliable evidence that the actions for its resolution are in process.
3.	**Team**	
		Once the BDCA establishes that the findings are feasible for an Aeronautical Study, it will be possible to proceed to the designation of an aeronautical study team for the realization of these in conjunction with the Aerodrome Operator.
4.	**Meeting with aerodrome operator**	
		Established the group will do the following: • Carry out different meetings to identify hazards and risks associated with the finding analysed. • Investigate and compile all necessary documentation for the accomplishment of Aeronautical Studies. • Develop alternative means to guarantee operational safety.
5.	**Evaluation of proposals and inspections.**	
		During phase IV of the certification process, aerodrome inspectors: • Evaluate the effectiveness of each alternative and recommend procedures to compensate or mitigate the finding. • Inspect components of the aeronautical studies and the airport system, from this inspection new requirements could

		arise to Aeronautical Studies or Safety Evaluations or requests for exemptions due to, improvements in equipment, maintenance actions, among others. • Notify the aerodrome operator of the results of the evaluations and inspections.
6.	**Amendment to Aeronautical Studies and Safety Evaluations**	
		The aerodrome operator must: • Evaluate and amend the security studies and security assessments reported by the BDCA. • Conduct safety studies or safety assessments, requested by the BDCA resulting from the evaluations and inspections of phase IV.
7.	**Rejection of the request for Exemptions or Exceptions**	
		The aerodrome inspector: • From the analysis carried out and due to inconsistencies in the Studies presented or not showing evidence that the actions for its resolution are in process (in the case of exemptions). • You must inform the aerodrome operator within a maximum period of (30) business days of receipt of the request, which may be extended when there is just cause.
8.	**Acceptance of the exemption or exception request.**	
		The aerodrome inspector: • From the result of the analysis of the received documentation, if it be satisfactory, or upon receiving again the exemptions or exceptions returned for rejection and these have a satisfactory analysis. • It communicates to the operator the acceptance of the requested exemptions or exceptions.
9.	**Records of exceptions and exemptions**	
		The aerodrome inspector: • Record exceptions and exemptions in the form 1005a and 1005b.
10.	**Surveillance**	
		The aerodrome inspector: It must perform surveillance primarily on compliance with exceptions and the accepted time for the exemptions requested from the certified aerodrome.

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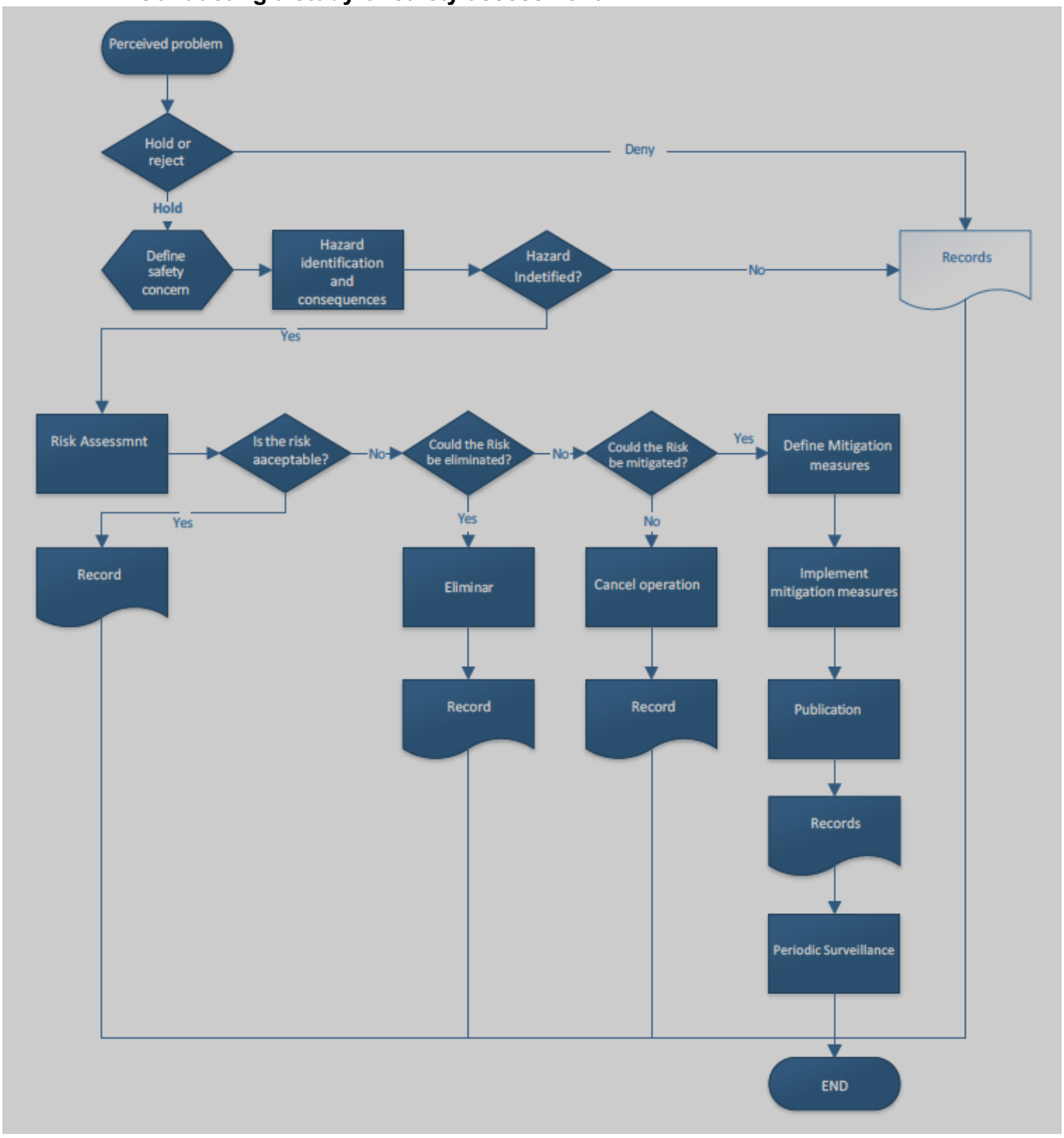
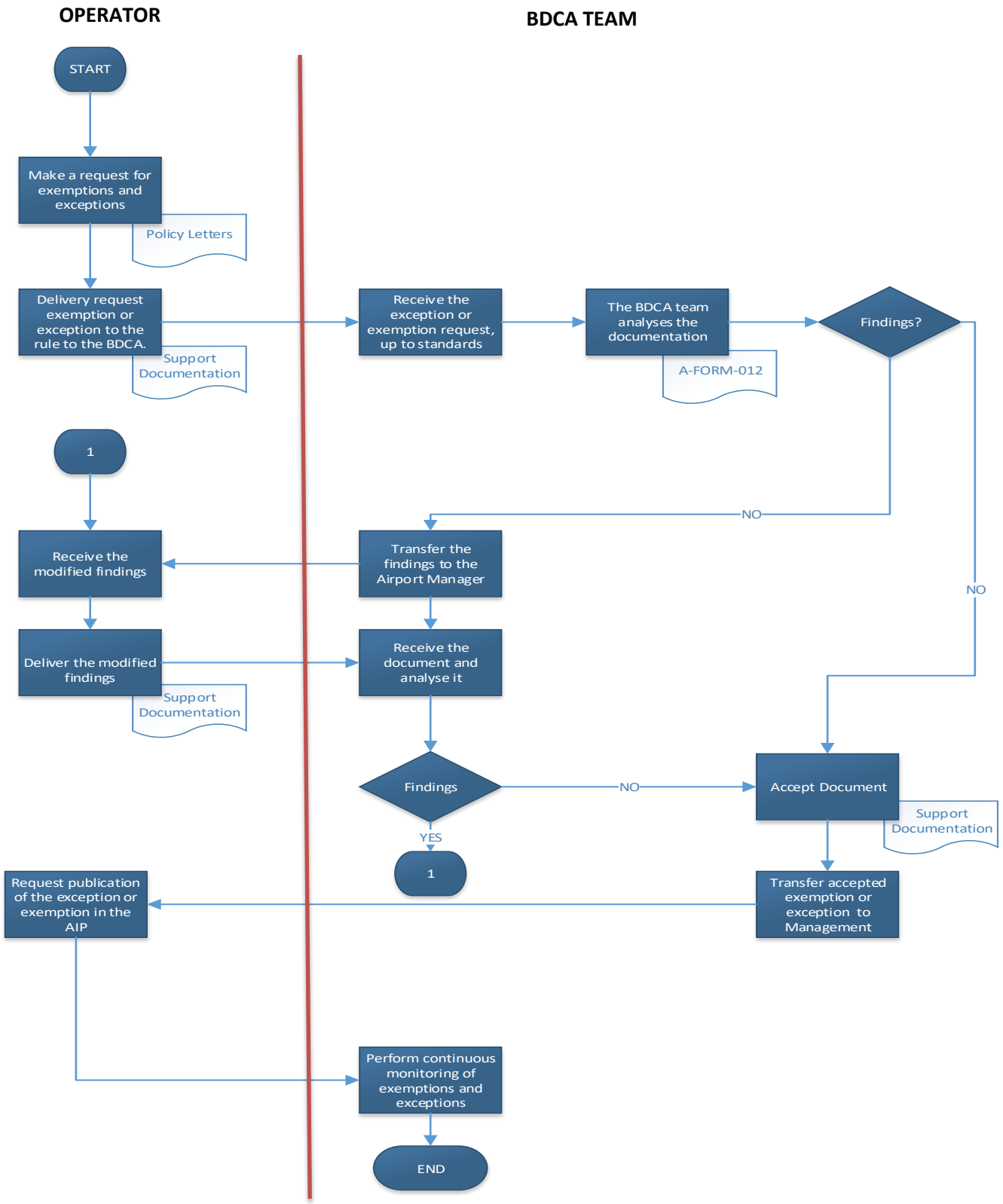
VIII.1. Flow Charts

VIIII.1.1. Conducting a study or safety assessment



VIIII.1.2. Acceptance of an `aeronautical study or safety assessment



VIII.2. Records

Code	Name	Responsible	File Type	Access	Conservation Time
AGA-FORM-050 AIPM	9.050 BDCA-FORM-050 Checklist for Reviewing of Aeronautical Studies.	Aerodrome Inspector	Digital or Hard Copy	BDCA Staff, Flight Standards Management	Indefinite.
AGA-FORM-067 AIPM	exemptions and exceptions	Aerodrome Inspector	Digital or Hard Copy	BDCA Staff, Flight Standards Management	Indefinite.

Notification to the public and the industry

All exemptions / exceptions granted must be published through an AIC and on the BDCA website

Notification of differences.

Some exemptions / exemptions granted especially long-term ones could constitute differences that must be notified to ICAO. As part of the process of analysis of all exemptions / exceptions, the team must determine whether it will be necessary to notify ICAO of the difference through the EFOD.

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Annex 1 Requirements included in the BCAR 14 Vol. I that can opt for an exception request if they are not fulfilled.

Within the list of requirements suitable for an exception or exemption request, they are, but are not limited to:

SUBPART	CHAPTER	POINTS
C: Physical Characteristics	1. Runways	1.3.7 Runway Width
		1.3.8 Minimum distance between parallel runways.
		1.3.9 Minimum distance between parallel runways.
		1.4 Runways Slope
		1.5 changes in longitudinal slope
		1.6 Visible Distance
		1.7 Distance between slope changes
		1.8 transversal slopes
		1.9 runway surface
		1.10 Runway Margins
		1.11Turnaround
		1.12 Runway Strip
	2. R.E.S.A	2.1 General
		2.2 R.E.S.A dimensions
	3. obstacle free area	3.1 obstacle free area location
		3.2 obstacle free area length
		3.3 obstacle free area width
		3.4 Slopes in obstacle free area
		3.5 Obstacles in obstacle free area
	5. Taxiway	5.1Taxiways
		5.2 Taxiway width
		5.3 intersections
		5.4 minimum separation between taxiways
	6. Slopes	6.1 Slopes
		6.6 Taxiway surface
		6.7 Fast taxiways
		6.8 taxiways on bridges
		6.10 Taxiway Strips
	7. Platforms / Apron	7.1.3 apron resistance
E: Visual Aids for navigation	4.Approach lighting system	4. Approach lighting system
		4.2.4 apron lighting with projectors
H: Electric Systems	1. Electric power supply system for navigation installations.	1.1.3 Electric power supply system for navigation installations.
		1.1.4 Electric power supply system for navigation installations.
	1. Electric power supply system for	1.1.8 Electric power supply system for navigation installations.

	navigation installations. (visual Aids)	
		1.1.9 Electric power supply system for navigation installations.
		1.1.10 Electric power supply system for navigation installations.
		1.1.11 Electric power supply system for navigation installations.
		1.3 Monitor Device